

## TYCHEA CRASSA, sp. nov.

Differs from *T. lasii* in being larger, globose, of a brownish color, and having hairy legs and antennae and sparsely hairy body. Eyes very prominent on tubercles.

Length of body 3 mm. Length of antennal joints (1) 75 (2) 117 (3) 132 (4) 69 (5) 114 + 30.

HAB. — Found, April 2, at Old Pecos, near Rowe, N. M.

I give below tables for the separation of the species of Forda and Tychea found in America.

## FORDA.

- A. Joint 3 not nearly twice as long as 1 + 2.  
 a. Spur on end of 5th joint relatively long . . . . . *interjecti*, sp. n.  
 b. Spur on end of 5th very short . . . . . *kingii*, sp. n.
- B. Joint 3 nearly twice as long as 1 + 2 . . . . . *occidentalis* Hart.

## TYCHEA.

- A. Hairy; size large . . . *crassa*, n. sp. and *phaseoli* — probably *phaseoli*.  
 Garman, 7th Kentucky Rept., but apparently not the European *phaseoli*.
- B. Smooth.  
 a. 2d and 3d subequal.  
 1. Joint 5 with spur not so long as 3 + 4 . . . *groenlandica* Rübs.  
 2. Joint 5 with spur longer than 3 + 4  
   1' eyes on tubercles . . . . . *lasii*, sp. n.  
   2' eyes not on tubercles . . . . . *pallidula*, sp. n.
- b. 3d nearly as long as 1 + 2 . . . . . *brevicornis* Hart.

APPEARANCE OF THE 17-YEAR CICADA IN RHODE ISLAND  
 IN 1903.

BY ALPHEUS S. PACKARD, PROVIDENCE, R. I.

The interesting fact of the occurrence of a brood of *Cicada septemdecim* within the limits of Rhode Island was, early in June of the present year, contributed to the Providence Journal by Mr. James M. Southwick, the curator of the Museum of natural history of Roger Williams Park, Providence. Specimens and information

regarding their appearance were afforded him by Mr. Charles E. Ford, of Providence, who afterwards called on me, and kindly gave the following account. In driving, June 2, in the town of Coventry, at a point about two miles southwest of Washington village, near the southwest end of Tiogue Reservoir, not far from the New London Turnpike, he was attracted by a loud shrill noise like the concert of the "purring toad." He saw the scrub oak and other bushes for a distance of about one eighth of a mile "covered with them"; a great many nymph skins were observed clinging to the bushes, and the ground was full of the holes from which the nymphs had crawled out. Mr. Ford also told me that his grandfather observed the same insects at the same locality thirty-four years previously, and that he carried two or three of them to his house and showed them to his family, his mother remembering the circumstance.

Hoping to verify this information, I went to Washington, but owing to continuous stormy weather lasting over two weeks, I was unable to reach the locality until June 27. It was easily found, the holes and nymph-skins occurring over an area extending about an eighth of a mile on the south side of the road from Washington near "The Pat," now a rope manufactory, to the New London turnpike, on rather high land, formerly covered with oaks, chestnuts, and a few pines, but now overgrown with scrub oaks and chestnuts.

The nymph skins were abundant, and the scattered holes were numerous, sometimes as many as from 4 to 8 to a square foot. It was too late to find any living Cicadas, as they may have died somewhat prematurely from the effects of the prolonged cold stormy weather.

The dismembered bodies of the dead Cicadae, wings, separate abdomens, and legs, were picked up. As they were seen alive June 18-19, the fact that those I saw had been broken up and partly destroyed, perhaps by the little black ants frequenting the spot, shows how rapidly insect-remains disappear after death, and accounts for the fact that so few entire dead insects are to be found on the surface of the soil. They had laid but a few eggs; only one or two oak twigs contained a full complement of eggs, whose presence was indicated by the withered leaves, the twig having been perforated, broken, and bent down.

Mr. L. F. Bennett, living near by, told me that he saw them alive in the trees on June 6 of the present year, and that seventeen years ago a lady saw them in this same locality, *i. e.*, near "The Pat," then called Barclay's.

Mr. A. J. Andrews, the proprietor of the rope manufactory at "The Pat," was familiar with the Cicada, telling me that his father heard and saw them "about 17 years ago" at Spring Lake, or "Maple root," a locality in eastern Coventry two miles northwest of "The Pat," near Mishnock River, a small stream flowing into the Pawtuxet a little west of the village of Washington. He said he heard them

singing, and put several of them in a tin box, carrying them home. A third locality, reported to me by Mr. Andrews, is in East Greenwich, near the West Greenwich line at "Shippies," about half a mile east of Carr Pond. They were seen here June 18-19, 1903.

I may add that Mrs. Emma Wiggins of Anthony, R. I., kindly wrote me that Mr. Carpenter of Washington, R. I., saw the 17-year Cicada in the "Pat" region about the middle of June this year. He told her that it also appeared there seventeen years ago; that he has one in his house that was collected in the same place thirty-four years ago.

The specimens I collected agreed in size, markings, and color with others from the middle states in my collection, presenting no local variations.

It thus appears that there have been three visitations of the 17-year Cicada in Rhode Island, *i. e.* in 1869, 1886, and certainly in 1903, and that it appears in isolated places, not continuously over an extensive area.

It may be of interest to recall that Harris, in his Treatise on the injurious insects of Massachusetts, states that this insect is known to have appeared at Plymouth, Mass., in 1633, at Plymouth, Sandwich, and Falmouth, Mass., in 1804, at Sandwich in 1787, 1804, and 1821. Also in the Connecticut Valley at Hadley 1818, Westfield, 1835, North Haven, Conn., 1724, 1741, 1758, 1792, 1809, 1826, 1843, and at Martha's Vineyard in 1833. From these dates it would seem that there is a discrepancy between the Rhode Island years and those of Eastern Massachusetts and Martha's Vineyard, the estimated Rhode Island year, being for the past century 1808, 1825, 1842, 1869, 1886, and 1903.

Desirous of ascertaining whether this Cicada had appeared in Massachusetts this year, I wrote to Prof. H. T. Fernald, Associate entomologist of the Hatch experiment station, Amherst, Mass., who writes me as follows:—

"I made a quite thorough investigation of this insect this year as we expected it here. I obtained the aid of the Secretary of our State Board of Agriculture and through him inquired as to its presence, of all of his correspondents in the state, besides many of my own. In this way I reached every county and quite a number of towns in each county, there being over 200 persons in all. Not one of them either saw or heard of the Cicada this year, and I am satisfied that it was not present in the Connecticut valley part of Massachusetts at least, from my observations, and as no one reported it from anywhere else I think that if it was present it must have been very local."